

# **EXHIBIT 18**

**US Patent No. 8,432,892**

| Claim 10   | Identification   |
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| 10. pre A first access point for a multi-channel radio system, said first access comprising: | <p>T-Mobile sells Access Points that are compatible with mesh network systems (which operate on multiple channels, <i>i.e.</i>, “multi-channel radio systems”).</p>  <p>The screenshot shows a T-Mobile support page with a pink header. The main title is "How to Set Up Google Nest Wifi Mesh Network". Below it, a sub-header reads: "A Google Nest Wifi mesh network works with your T-Mobile Internet gateway to spread signal through your home. Learn more and find helpful resources below." At the bottom of the page, there are three links: "Setup", "Hide SSID", and "Troubleshooting". A note at the bottom says: "Don't have a Nest Wifi router? Learn more about our T-Mobile Internet exclusive deals on Nest Wifi routers &gt;".</p> <p><a href="https://www.t-mobile.com/support/home-internet/connect/google-nest-wifi-router">https://www.t-mobile.com/support/home-internet/connect/google-nest-wifi-router</a></p> |

## Setting up a new Google Nest router

**Note:** If your Nest Wifi device is powered off or disconnected from the internet for 6 months, Google will automatically delete the app data and cloud data, and the device will factory reset itself the next time it connects to the internet. To continue to use your device, you will need to set it up again.

### To set up a mesh network, you'll need...

- A Nest Wifi router (place at eye level, like on a shelf or TV stand)
- Any additional Wi-Fi devices you'd like to add to expand coverage (Nest Wifi points, Google Wifi points, or Nest Wifi routers). Additional devices are optional.
- A [Google Account](#)
- An Android phone/tablet (with Android 8.0 or later) or iPhone/iPad (iOS 14.0 or later)
- The latest version of the Google Home app, available on [Android](#) or [iOS](#)
- Internet service (Note: Some ISPs use VLAN tagging. You might need additional equipment for setup to work. Learn how to [set up your network with an ISP that uses VLAN tagging](#))
- A T-Mobile gateway
- iOS only: If you have VPN enabled, temporarily disable VPN through your phone settings

<https://www.t-mobile.com/support/home-internet/connect/google-nest-wifi-router>

**mesh basic service set (MBSS):** A basic service set (BSS) that forms a self-contained network of mesh stations (STAs) that use the same mesh profile. An MBSS contains zero or more mesh gates, and can be formed from mesh STAs that are not in direct communication.

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### 4.3.21.5.6 Mesh coordination function (MCF)

A mesh STA uses the mesh coordination function (MCF) for channel access. MCF consists of EDCA (contention based channel access defined in 10.24.2) and MCCA (controlled channel access defined in 10.24.3). MCCA is a reservation based channel access method and aims to optimize the efficiency of frame exchanges in a mesh BSS.

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|  | <p><b>4.5.8 Radio measurement service</b></p> <p>The Radio measurement service provides the following:</p> <ul style="list-style-type: none"> <li>— The ability to request and report radio measurements in supported channels.</li> <li>— The ability to perform radio measurements in supported channels.</li> <li>— An interface for upper layer applications to retrieve radio measurements using MLME primitives and/or MIB access.</li> <li>— Information about neighbor APs.</li> </ul> <p>IEEE 802.11 - 2020</p>   |
| 10[a] a wireless transceiver to send and receive data; and | <p>APs include a wireless transceiver to send and receive data.</p> <p><b>access point (AP):</b> An entity that contains one station (STA) and provides access to the distribution system services, via the wireless medium (WM) for associated STAs. An AP comprises a STA and a distribution system access function (DSAF).</p> <p>IEEE 802.11 - 2020</p> <p><b>station (STA):</b> A logical entity that is a singly addressable instance of a medium access control (MAC) and physical layer (PHY) interface to the wireless medium (WM).</p> <p>NOTE—For IEEE 802.11 purposes, a station is any MAC/PHY entity providing the IEEE 802.11 MAC services. This differs from the IEEE 802 definition of ‘station,’ which includes bridges (or ‘end stations’) that are endpoints of link layer data traffic.</p> <p>IEEE 802.11 - 2020</p> |
| 10[b] a clock,   | APs include a clock, such as the TSF timer.  |

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|  | <p><b>4.3.21.5.5 Mesh beaconing and synchronization</b></p> <p>In order to assist mesh discovery, mesh power management, and synchronization in a mesh BSS, all mesh STAs periodically transmit Beacon frames. Synchronization in a mesh BSS is maintained by the MBSS's active synchronization method. The default synchronization method is the neighbor offset synchronization method. Mesh beacon collision avoidance (MBCA) mitigates collisions of Beacon frames among hidden nodes. The details of mesh beaconing and synchronization are described in 14.13.</p>  |
|  | IEEE 802.11 - 2020  |
| 10[c] said first access point to:<br>10[d] transmit a beacon signal, said beacon signal comprising a value of the clock of the first access point at a time when the first access point transmits that beacon signal,  | The APs sold by T-Mobile are configured to perform as described in limitations 10[d] – 10[e].<br>Beacon frames comprise the value of the TSF timer at the time of transmission.<br><p><b>11.1.2.3 TSF for an MBSS</b></p> <p>The TSF in an MBSS is provided by the MBSS's active synchronization method. A mesh STA shall initialize its TSF timer according to the MBSS's active synchronization method. The mesh STA shall periodically transmit Beacon frames that contain the value of its TSF timer to announce its local time reference. Mesh STAs receiving a Beacon frame use the timing information in the Beacon frame as specified by the MBSS's active synchronization method. See 14.13.2 for details.</p> |
| 10[e] such that a second access point operating in the multi-channel radio system synchronizes a clock of that second access point by extracting the time data from the beacon signal of the first access point and adjusting the clock of the second access point in accordance with that time data from the beacon signal of the first access point. | IEEE 802.11 - 2020<br><br><p><b>14.13.2.2.3 Clock drift adjustment</b></p> <p>When dot11MeshActiveSynchronizationMethod is neighborOffsetSynchronization (1), the mesh STA shall examine the reception time of the Beacon frames from neighbor STAs with which it maintains synchronization and adjust its TSF timer to compensate the relative timing error among neighbor mesh STAs caused by the clock drift. The mesh STA adjusts its TSF so that its TSF counting is aligned to the most delayed neighbor STA.</p>   |